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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/091,510	12/17/1998	CHRISTOPHER TOWNSEND	2365-104	5025

				EXAMINER
6449	7590	12/01/2005		BROWN, RUEBEN M

ROTHWELL, FIGG, ERNST & MANBECK, P.C.
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WASHINGTON, DC 20005

ART UNIT	PAPER NUMBER
2611	.

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/091,510	TOWNSEND, ET AL
		Examiner	Art Unit	
		Reuben M. Brown	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 July 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,7,8,10-33,35-45,59,60,65-68 and 70-85* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,7,8,10-33,35-45,59,60,65-68 and 70-85* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to the claims have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
> in section 102 of this title, if the differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

3.   Claims 1, 3-5, 7-8, 10-22, 28-33, 35-45, 59-60, 65-68, 70-76 & 79-85 are rejected under

35 U.S.C. 103(a) as being unpatentable over Adams, (U.S. Pat # 5,541,662), in view of

Hendricks, (U.S. Pat # 5,990,927) & Volk, (U.S. Pat # 5,687,331).

Considering claims 1, 28 & 70, the claimed receiver or method for receiving broadcast

digital TV signals representing video and information data, the receiver comprising:

' a decoder for separating the video data and the information data', is met by data selector

76 that extracts video data and decodes the associated data from the broadcast stream, Adams

col. 4, lines 35-65; col. 5, lines 1-20; col. 6, lines 6-58 & Fig. 3.

The claimed 'information data' corresponds with the associated data discussed

throughout Adams. The associated data includes commands that control the content and location

of placement of graphical interactive images/icons along with video images, see col. 5, lines 16-

22 & col. 7, lines 32-67. It is noted that Adams discloses that the video, audio & associated may

be distributed as a packetized digital stream using satellite, CATV or broadcast media.

'store for storing the received information data' is broad enough to read on the associated

queue 74 that stores the associated data, before being retrieved by the processor 52.

'a processor responsive to the stored information data to output for display an interactive

image derived from the video data and information data', is met by the operation of the processor

52, which reads the audio, video & associated data from their respective queues 70, 72 & 74,

and generates the display of images on the screen, col. 6, lines 54-58.

'a modem for establishing a telecommunications link', Adams discusses a data modem

58, see (Fig. 2; Fig. 3; col. 5, lines 22-30; col. 5, lines 54-67 & col. 6, lines 1-20). Even though

Fig. 2 & Fig. 3 of Adams appears to disclose two-way communication and examiner points out

that by definition a modem is enabled to provide two-way communication, Adams does not

explicitly disclose that the data modem 58 operates 'to transmit and receive on-line data from a

remote site'. Nevertheless, such a feature was old in the art, at the time the invention was made

and is clearly taught by Hendricks, col. 26, lines 32-36 & col. 27, lines 10-22.

Hendricks teaches that in a Level B upgrade mode of operation, a Level B upgrade

module includes at least a telephone modem 120 (Fig. 12a). It is disclosed that the modem

provided on the upgrade module, enables two-way communication over a communication

network, in order to provide the subscriber with on-line services, such as shopping, airline

reservations, news, financial services, home banking, interactive teletext services, etc., which

meets the claimed subject matter, also see col. 36, lines 21-30; col. 27, lines 44-67; Fig 18 & Fig.

20 (a,b,c). It would have been obvious for one of ordinary skill in the art at the time the

invention was made, to modify Adams to use a modem for sending/receiving on-line data, such

as for on-line interaction, at least for the desirable improvement of upgrading/expanding the

functionality of the home terminal, as taught by Hendricks.

'the processor being responsive to received viewer commands to cause the modem to

transmit data to and receive on-line data from a remote site for on-line interaction via the

interactive image and between the viewer and the remote site', is met by the combination of

Adams & Hendricks.

As for the specific detail of reception of the user command signals to vary the interactive

image, Adams does not discuss the appearance of the interactive image/icon after its selection by

the user. However, Volk provides an in-depth discussion of animating an interactive image/icon, (Abstract; col. 10, lines 34-67 thru col. 11, lines 1-25; col. 12, lines 15-40; col. 20, lines 15-39 & col. 29, lines 10-21 & Fig. 8). The animated icons in Volk, also corresponds with the claimed 'interactive image', since this data is transmitted to the set-top terminal 48 within program modules 202 and are stored in memory at the instant set-top terminal, col. 25, lines 25-35.

It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the images in Adams & Hendricks, to vary or change their appearance upon selection by the user, at least for the well known purpose of confirming for the user, that the instant icon has indeed been selected, as taught by Volk, (col. 5, lines 12-34 & col. 6, lines 26-37).

Considering claims 3-4, 29-30, 35-36, 71, 81 & 84, the associated data of Adams reads on the claimed 'information data' as program data and the processor 52 executes programs contained within the associated data, see col. 6, lines 1-6; col. 7, lines 55-60 & col. 8, lines 64-67 thru col. 9, lines 1-4.

Regarding claims 5, 15, 31, 38, 72 & 82, the claimed stored 'template data' reads on the object definitions included in the associated data of Adams, see col. 7, lines 40-67 thru col. 8, lines 1-24, which are stored in the associated data queue. These object definitions are used to construct the graphics displayed on the monitor, which reads on the claimed subject matter.

Also, the disclosure of Hendricks teaches that menu screens may be stored as templates, which reads on the claimed subject matter, col. 10, lines 48-67 thru col. 11, lines 1-20.

Furthermore, the claimed 'template data' also reads on the program modules 202 of Volk, which include control and focus objects that are transmitted to the set top terminal 48 and used to render graphical images on the viewers screen, col. 10, lines 45-67; col. 17, lines 28-64; col. 30, lines 24-65.

Considering claims 7-8 & 73-74, Adams teaches that the user system may at least use a mouse 22 or keyboard 20, but does not discuss the claimed 'remote control'. Nevertheless, Volk teaches that the input device 54 to a set-top terminal may be a keyboard, mouse, handheld remote control, trackpad, etc., col. 16, lines 49-67 & Fig. 1. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Adams with remote control discussed in Volk, at least for the desirable advantage of allowing the user more freedom of movement while using the input device.

Considering claims 10 & 75, the claimed store for storing on-line data received from via the modem, reads on the disclosure in Hendricks of the Level C upgrade which includes local storage capacity in order to store interactive application data, col. 27, lines 23-40. Hendricks also teaches that ROM, RAM, EPROM EEPROM, may be used to store portions of programming signals transmitted the subscriber, col. 32, lines 45-55.

Considering claims 11-13 & 16, the processor 52 of Adams responds to the received data, executes programs/instructions contained within the data transmitted to the subscriber over communication line 30, col. 5, lines 22-25 & col. 6, lines 55-59. Also the system of Hendricks clearly is responsive the subscriber's interaction with on-line data to execute programs associated with the instant on-line data, see col. 37, lines 44-67; Fig. 18, Fig. 20a, 20b & 20c.

Considering claims 14, 17, 37, 39, 40, 65-68, 76 & 85, the claimed plural interactive screens that are individually displayable, and are displayed in a hierarchical order is met by the disclosure of Volk that teaches that the interactive data may be displayed as frames, which correspond to windows in computer GUI technology, (col. 30, lines 1-24). Each frame is its own container of selectable objects, which reads on individually separable screens. The viewer may navigate from frame to frame by selecting items within a particular frame (parent), which leads to subsequent item(s), within the next frame (child). Also see Hendricks, col. 12, lines 61-67; col. 37, lines 44-67; Fig. 18, Fig. 20a, 20b & 20c

Considering claims 18-22 & 41-45, Adams discloses a command that defines the size of a selection region, col. 7, lines 41-67, but does not discuss the interactive image being larger than the size of the screen. Nevertheless, Volk teaches that the interactive data may include images that are longer or wider than the screen to which it is displayed, Fig. 8B. In this instance the additional images are viewed by using the well known scrolling technique, col. 37, lines 38-67. It would have been obvious for one of ordinary skill in the art at the time the invention was made,

to modify Adams with the well-known technique of displaying images that are larger than the screen, as taught by Volk, so that the display is not limited to the size of the screen.

Considering claims 32-33 & 83, the claimed subject matter is met by the operation of Adams, (col. 8, lines 1-24) and Volk, (col. 25, lines 25-46; col. 34, lines 31-40 & col. 36, lines 20-50).

Considering claims 59-60 & 79, Adams teaches that background and foreground may be controlled from the associated data, col. 7, lines 40-67 thru col. 8, lines 1-24. Also, Volk teaches that background may be live video and that the graphics may be overlaid, which reads on 'changeable', col. 34, lines 31-67. As for the feature of the background and foreground having corresponding subjects, so that they appear to form a continuous single interactive image, Volk discloses that when rendering multiple layers of items, it is desirable that their Z order appear contiguous, see col. 33, lines 63-67. As for the content, by definition, in both Adams (col. 6, lines 61-67) and Volk (col. 11, lines 42-67) the graphical images/icons that are displayed are related to the video data to which they are displayed.

Considering claim 80, the claimed method steps of interacting with broadcast interactive services using a receiver for receiving digital TV signals corresponds with subject matter mentioned above in the rejection of claim 1, and is similarly treated. Claim 80 recites, 'image data', instead of 'video data', which is recited in claim 1. However, 'image data' is broader than 'video data', and thus the claims are likewise analyzed.

4.   Claims 23-27 & 77-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over

.Adams, Hendricks & Volk, further in view of Schutte, (U.S. Pat # 5,319,454).

Considering claims 23-27 & 77-78, Adams does not discuss the use of smart card

technology to enable the user to purchase programming. Nevertheless, Schutte provides a

disclosure directed to a customer card, which is used to control access to premium programming,

using a card reader 44 Abstract; Fig. 1; col. 4, lines 50-67 & col. 5, lines 1-25. It would have

been obvious for one ordinary skill in the art at the time the invention was made, to modify

Adams to provide a card that is used to control access to premium programming, at least for the

desirable benefit of limiting purchasing to the individual that has possession of the smart card, as

taught by Schutte, which is a form of parental control of the unit.

As for claim 24, Schutte teaches that the reader is enabled to read magnetic stripes, as are

on credit cards, col. 4, lines 54-57. As for the claimed second card reader, Official Notice is

taken that at the time the event was made, the use of multiple card readers at a terminal was

known in the art. It would have been obvious for one ordinary skill in the art to modify Adams

& Schutte with additional card readers; at least for the advantage of providing redundancy, so

that in the case of one reader not being operable, the subscriber may use the other one.

Any response to this action should be mailed to:

> Commissioner for Patents
> P.O. Box 1450
> Alexandria, VA 22313-1450
> www.uspto.gov

or faxed to:
(571) 273-8300, (for formal communications intended for entry)
Or:
> (571) 273-7290 (for informal or draft communications, please label
> "PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F (9:00-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Reuben M. Brown